UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,557	02/10/2004	Peter Nash	C150.12.4	1455

7590 06/01/2007

Richard O. Bartz
Suite 350
6750 France Avenue South
Edina, MN 55435

EXAMINER
HINES, JANA A

ART UNIT	PAPER NUMBER
1645	

MAIL DATE	DELIVERY MODE
06/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,557	NASH ET AL.	
	Examiner	Art Unit	
	Ja-Na Hines	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) *14-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 42-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) *1-48* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/25/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I along with swine influenza virus in the reply filed on February 13, 2007 is acknowledged. Claims 14-41 have been withdrawn from consideration. Claims 1-2, 5-13 and 42-48 are under consideration in this office action.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on October 24, 2005, October 6, 2005 and March 7, 2005 have been filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-2, 5-13 and 42-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention. This is a written description rejection.

Claim 1 is drawn to a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating female birds, in or about to reach their egg laying age, with a targeted colony-forming immunogen; B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming immunogen; C. Harvesting the eggs laid by the birds; D. Separating the antibody-containing contents of said eggs from the shells.

The specification does not reasonably provide a adequate support of the broad genus of any microbial adherence inhibitors for administration to food animals to prevent the adherence of any targeted colony-forming immunogens, in the respiratory tracts of animals produced by the method inoculating female birds, in or about to reach their egg laying age, with any targeted colony-forming immunogens. The specification discloses a method of inhibiting the ability of colony forming microorganisms, such as *Pasteurella (Mannhiema) haemolytica , P. multocida*, and *Haemophilus somnus*, Swine influenza, *Mycoplasma bovis* or *M. hypopneumoniae* from adhering to the mucous membranes and bronchi and alveolar cells of the respiratory tracts of animals thereby preventing colonization of the microorganisms [0022]. Other than the specific organisms as immunogen mentioned above, there is inadequate written description about the

structure associated with function of any "targeted colony-forming immunogens". The specification

A method of for the production of a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming organisms, there is inadequate written description about the structure associated with function of (1) any "targeted colony-forming immunogens", because the term immunogen do not convey a specific structure. Further, inoculating any female bird with the specific organisms can produces a wide antibody containing contents as microbial inhibitors. Given the indefinite number of undisclosed "targeted colony-forming immunogens" even from any one specific organism mentioned above, the unidentified microbial adherence inhibitor produced by inoculating with any undisclosed antigen is not adequately described. One of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus. Thus, Applicant was not in possession of the claimed genus. See *University of California v. Eli Lilly and Co.* 43 USPQ2d 1398. Applicant is directed to the Revised Interim Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

The claims are so broad that they encompass the every type of targeted colony forming immunogens and any components found within the antibody containing contents, however applicants have not described such inhibitors or a method for their production. The instant specification fails to provide a method where substantial

prevention of the adherence of many or all targeted colony forming immunogens in the respiratory tract occurs. The specification does not place any structure, chemical functional limitations on the targeted colony forming immunogens or the antibody containing contents per se. The recitation of targeted colony forming immunogens or does not convey a common structure or function. There is no written description of method steps which teach such broadly claimed methods. There are no examples that teach the inhibition of each and every type of targeted colony-forming immunogens. The claims fail to recite the necessary method steps. There are no data showings that the growth will be inhibited in every targeted colony-forming immunogens. The scope of the claims includes numerous structural variants and the genus is highly variant because a significant number of structural differences between the genus members are permitted. The specification fails to provide guidance on the structure of the targeted colony-forming immunogens or antibody containing contents. Structural features that could distinguish targeted colony-forming immunogens or antibody containing contents in the genus from others in the class are missing from the disclosure and the claims. No common structural attributes identify the members of the genus. The general knowledge and level of skill in the art do not supplement the omitted description, because specific, not general guidance is needed. The specification and claims lack sufficient written description of the generically claimed targeted colony-forming immunogens or antibody containing contents.

The lack of guidance and support reveal the wide variety of unknown targeted colony-forming immunogens encompassed by the "targeted colony-forming

immunogens". Regarding the state of the prior art, Stolle et al., (US Patent 4,748,018) teach using *Pasteurella multicoda, P. haemolytica, Moraxella bovis, Haemophilus* and *Mycoplasma* species as targeted colony-forming immunogens from respiratory bacteria to produce microbial adherence inhibitors. Stolle et al., show the use of a wide variety of bacterial targeted colony-forming immunogens. The representation of the prior art by Stolle et al., show a specific species within the broad genus of targeted colony forming immunogens. However, the claims are not limited to bacterial immunogens. The specification and the state of the prior art fail to provide a common structure or functional core to define of the broad scope of claimed genus of targeted colony forming immunogens. Therefore, the prior art provides specific guidance concerning a specific class of colony forming immunogens. The state of the prior art shows that there is inadequate knowledge about the function and commonality of the broad genus of "targeted colony-forming immunogens." Given the indefinite number of undisclosed "targeted colony-forming immunogens" even from any one specific organism mentioned above, the unidentified microbial adherence inhibitor produced by inoculating with any undisclosed targeted colony-forming immunogens is not adequately described.

An adequate description requires more than a mere statement that it is part of the invention. The nucleic acid itself is required. See *Fiers v. Revel*, 25 USPQ 2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. V. Chugai Pharmaceutical Co. Lts.*, 18 USPQ2d 1016. Even where there is an actual reduction to practice, which may demonstrate possession of an embodiment of an invention, it does not necessarily describe what the claimed invention is. The court indicated that while Applicants are not required to disclose every species encompassed by a genus, the description of a genus is achieved

by the recitation of a representative number of DNA molecules, usually defined by a nucleotide sequence, falling within the scope of the claimed genus. At section B(1), the court states that "An adequate written description of a DNA...'requires a precise definition, such as by structure, formula, chemical name, or physical properties', not a mere wish or plan for obtaining the claimed chemical invention".

Vas-Cath Inc. V. Mahurkar, 19 USPQ2d 1111, clearly states that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117). The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (*See Vas-Cath* at page 1116).

Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 USC 112 is severable from its enablement provision (see page 115).

In view of these considerations, a person skilled in the art would not have viewed the teachings of the specification sufficient to show that applicants were in possession of the claimed polypeptides. Therefore the full breadth of the claims fails to meet the written description provision of 35 USC 112, first paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1,2, and 5-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) The phrase "substantially prevent the adherence of targeted colony forming immunogens." in claim 1 is a relative phrase which renders the claim indefinite. The phrase is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. There is no requisite level to determine how much prevention is substantial. Therefore the metes and bounds of the claim cannot be determined. Furthermore, the phrase is ambiguous and indefinite because it is not clear which particular targeted colony forming immunogen to be used for inoculating the bird. One of ordinary skill in the art cannot appraise the metes and bounds of the claimed invention.

b) Claim 5 recites the phrase "contents is derived from" however it is unclear how to define "derived from". The derivative language is vague and indefinite because the characteristics needed to determine whether contents could be considered a derivative of the egg are unknown. The specification neither discloses a definition for derived, nor does it teach a requisite amount of retained qualities needed or characteristics necessary to determine the derivatives of the egg. Therefore the claim is unclear.

c) Regarding claim12, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 5-7, 11, 42-43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokoro (US Patent 5,080,895).

Claim 1 is drawn to a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating female birds, in or about to reach their egg laying age, with a targeted colony-forming immunogen; B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming immunogen; C. Harvesting the eggs laid by the birds; D. Separating the antibody-containing contents of said eggs from the shells. Claims 2, 6, 11 is drawn to the colony forming immunogen ability to cause illness; claim 5 is drawn to the antibody containing contents being derived from specific egg-laying animals; and claim 7 is drawn to the mixing the separated contents with a carrier material. Claim 42 is drawn to a method of producing a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating female birds, in or about to reach their egg laying age, with a targeted colony-forming immunogen; B. Allowing a

period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming immunogen; C. Harvesting the eggs laid by the birds; D. Separating the antibody-containing contents of said eggs from the shells. Claim 43 is drawn to the colony forming immunogen ability to cause illness; and claim 45 is drawn to the mixing the separated contents with a carrier material.

Tokoro teaches a method of producing a microbial adherence inhibitor and the microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating hens, in their egg laying age, with a targeted colony-forming immunogen (col. 5, lines 29-31); B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming immunogen (col. 5, lines 47-52); C. Harvesting the eggs laid by the birds (col. 5-6, lines 67-1); D. Separating the antibody-containing contents of said eggs from the shells (col.6, lines 8-12). The antigens used to immunize hens include pollens, bacteria, viruses, molds, allergens, or a combination of antigens (col. 4, lines 50-57). Pollen, mold and allergens are all known to cause respiratory illness in humans allergic to those substances. The antigen used in immunization of the hens is a bacterium that causes colibacillosis in calves or piglets (col. 6, lines 37-40). It is noted that colibacillosis is most commonly seen following upper respiratory disease and its symptoms include respiratory sings, coughing and sneezing, dejection, reduced appetite and poor growth. Colibacillosis is seen worldwide in chickens and turkeys. Thus the yolk is effective in protecting calves and piglets (col. 6, lines 40-44). The

reference microbial adherence inhibitor such as dried egg antibody is used as an additive to food for animal or as a solution such as milk to livestock to prevent adherence of the targeted immunogen in the intestinal tract of the animal (See column 9, line 42-46, column 10, line 30, column 5 lines 29 bridging column 6, lines 1-49, column 9, lines 43-57, column 10, line 29-31, in particular). Tokoro teach a targeted colony forming immunogen is one known to cause respiratory illness that decreases an animals appetite and effects companion animals such as cows and pigs. Tokoro teaches the yolk being separated from the egg since the yolk contains most of the antibodies (col. 6, lines 10-12). Therefore Tokoro teaches antibodies as the microbial adherence inhibitors. Tokoro teaches the separated yolk egg product is homogenized where water is added (col. 6, lines 19-22). Thus, Tokoro teach mixing the separated antibody contents with water as the carrier material.
Thus, Tokoro anticipates the claimed invention.

6. Claims 1-2, 5-7, 11-12 and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Stolle et al., (US Patent 4,748,018).

Claim 1 is drawn to a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating female birds, in or about to reach their egg laying age, with a targeted colony-forming immunogen; B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming

immunogen; C. Harvesting the eggs laid by the birds; D. Separating the antibody-containing contents of said eggs from the shells. Claims 2, 6, 11, 12 is drawn to the colony forming immunogen ability to cause illness; claim 5 is drawn to the antibody containing contents being derived from specific egg-laying animals; and claim 7 is drawn to the mixing the separated contents with a carrier material. Claim 42 is drawn to a method of producing a microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating female birds, in or about to reach their egg laying age, with a targeted colony-forming immunogen; B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's eggs to the targeted colony-forming immunogen; C. Harvesting the eggs laid by the birds; D. Separating the antibody-containing contents of said eggs from the shells. Claim 43 is drawn to the colony forming immunogen ability to cause illness; claim 44 is drawn to the immunogens being from swine influenza viruses; and claim 45 is drawn to the mixing the separated contents with a carrier material.

Stolle et al., teach a method of producing a microbial adherence inhibitor and the microbial adherence inhibitor for administration to animals to substantially prevent the adherence of targeted colony-forming immunogens in the respiratory tracts of said animals produced by the method of: A. Inoculating hens, in their egg laying age, with a targeted colony-forming immunogen (col. 7, lines 25-30); B. Allowing a period of time sufficient to permit the production in the bird of antibody-containing contents in the bird's

eggs to the targeted colony-forming immunogen (col. 7, lines 30-35); C. Harvesting the eggs laid by the birds (col. 7, lines 35-37); D. Separating the antibody-containing contents of said eggs from the shells (col.10, lines 5-10). Any antigen or combination of antigens are employable, including bacterial, viral, cellular or other substances that cause various conditions in mammalians or virus induced infections (col. 5, lines 1-8).

Stolle et al., teach *Pasteurella multicoda, P. haemolytica, Moraxella bovis*, and a variety of *Haemophilus* and *Mycoplasma* species as targeted colony-forming immunogens from classes of respiratory bacteria (col. 5, lines 10-35). These targeted colony-forming immunogens from classes of respiratory bacteria are known to decease an animal's ability to feed and cause respiratory illness in humans animals. Any mammal is treatable including domesticated animals such as rabbits, horses, goats, sheep, non-domesticated animals such as apes or monkeys and humans (col. 4, lines 61-68). Stolle et al., teach viral antigens such as equine herpes virus (col. 5, lines 36-38). Symptoms of the herpes virus include life-threatening lung inflammation, watery nasal discharge, loss of appetite (anorexia), cough, labored breathing. Therefore Stolle et al., teach immunogens known to cause respiratory illness affecting high value nonfood animals such as horses. The avian antibody to be administered to the mammalian is obtained from eggs; therefor the antibody is administered directly or is combined with a conventional pharmaceutically acceptable liquid or solid carrier (col. 6, lines 60-66). Stolle et al., teach the reference microbial adherence inhibitor is an antibody and mixing the separated antibody contents with pharmaceutically acceptable carrier materials.

Thus, Stolle et al., anticipate the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 8-9 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokoro (US Patent 5,080,895) and Coleman (US Patent 5,585,098) further in view of Ishihara et al., (US Patent 6,068,862). Coleman (US Patent 5,585,098).

Claims 8 and 46 are drawn to a mixing and pasteurization step; and claims 9 and 47 are drawn to a storage step.

Coleman teach mixing the separated antibody containing contents and pasteurizing those contents (col. 6, lines 1-3). The chicken antibody is not harmed by pasteurization (col. 6, lines 2-3). Pasteurization is the process of heating for the purpose of destroying viruses and harmful organisms such as bacteria, protozoa, molds and yeasts. Coleman et al., teach the adminstration of chicken antibodies obtained from the egg of a hen immunized against a pathogenic organisms to thereby elicit antibodies and administer those antibodies to cows (abstract). Extraction of yolk antibodies is performed even on a large scale without costly investment (col. 5, lines 65-68). Concentrating the antibody from egg yolk is a relatively straightforward process (col. 5-

6, lines 68-1). Thus, there would be no problem with consumption of milk from dairy cattle treated with egg yolk antibodies, and no mandatory milk-withholding period, in sharp contrast to antibiotics (col. 6, lines 5-9). Thus the antibody contents and carrier material are stored in milk cartoon, thereby teaching a storage step.

Therefore, it would have been prima facie obvious to one ordinary skill in the art at the time the invention incorporate mixing and pasteurizing the separated antibodies with a carrier material as taught by Coleman in the method of Tokoro in order to destroy contaminating viruses and harmful organisms such as bacteria, protozoa, molds and yeasts present in the egg products. One of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention since Coleman teach the desire to produce functionally active yet uncontaminated antibody that meets with the USDA standards for the treatment of other animals. One having ordinary skill in the art would have been motivated to do this because Tokoro and Coleman teach separating the antibody, mixing the antibody with carrier materials and pasteurizing the product to eliminate potential pathogenic microorganisms in order to produce consumable milk that does not require the mandatory withholding period. Finally it would have been prima facie obvious to combine the invention of Tokoro and Coleman to advantageously achieve protection against infectious viral and/or bacterial illness in domestic animals.

8. Claims 10 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokoro (US Patent 5,080,895) and Coleman (US Patent 5,585,098) further in view of Ishihara et al., (US Patent 6,068,862).

Claims 10 and 48 are drawn to the material of the carrier material being soybean oil, molasses, distilled dried grains or beet pulp.

Tokoro and Coleman have been discussed above, however neither teach the carrier material being soybean oil, molasses, or distilled dried grains.

Ishihara et al., teach soybean oil and molasses as carrier material which is mixed with the microbial adherence inhibitor antibody (col. 5, lines 30-35, and Examples 9 and 10).). Ishihara et al., teach feed for poultry including soybean oil, and grains such as corn feed, and wheat bran; while feed for dairy cows contains molasses, and grains such as corn, rye and wheat bran (Examples 9 and 10). The animal feed additive is a specific antibody that specifically binds to an infectious microorganism or virus is produced from chicken egg antibodies obtained from eggs of egg laying hens hyperimmunized with infectious microorganisms or viruses (col. 5, lines 30-35). The animal feed additive and the animal feed containing the additive are useful in preventing and treating illness associated with rapid environmental changes, feed composition changes and inappropriate breeding husbandry or infectious diarrhea induced by viruses and bacteria, improves intestinal functions, feed efficiency and eliminates fecal and urinary malodor (col. 4, lines 9-20).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to mix animal feed such as soybean oil, grains as taught by

Ishihara et al., with Tokoro and Coleman in order to prevent and treat illness in farm animals as taught by Tokoro and Coleman. One of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention since Tokoro, Coleman and Ishihara et al., teach treating animals with microbial adherence inhibitors as a means of immunizing animals against pathogens. One having ordinary skill in the art would have been motivated to do this because the Ishihara et al., teach the animal feed additives being mixed with carrier the materials of animal feed improves intestinal functions, feed efficiency and eliminates malodor. Finally it would have been prima facie obvious to combine the invention of Tokoro, Coleman and Ishihara et al., to advantageously achieve protection against infectious viral and/or bacterial illness in domestic animals.

Conclusion

9. No claims allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ja-Na Hines whose telephone number is 571-272-0859. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Jeffery Siew, can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ja-Na Hines
May 10, 2007

JEFFREY SIEW
SUPERVISORY PATENT EXAMINER